

FIRE ALARM GENERAL NOTES

1. ALL FIRE ALARM CABLES SHALL BE TYPE #14 AWG, 200C, 600V, SHIELDED (EXCEPT FOR SPEAKERS WHICH USE UNSHIELDED, INSULATED CONDUCTORS CLASS "E" BSA APPROVED FOR NYC LOCAL LAW #5 FEP (TEFLON OR APPROVED EQUIV. INSULATION) AND CONDUCTORS COLORED BLACK AND RED. ALL CABLES TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL CABLES INSTALLED IN PLUMBING CEILING SHALL BE MOUNTED AND SUPPORTED ABOVE THE PLUMBING CEILING AND INSTALLED WITHOUT CONDUITS (U.O.N.). ALL OPEN AREA WALL UTILIZES CONDUITS.
2. ALL CONDUITS SHALL BE RIGID STEEL, HOT DIPPED GALVANIZED WITH THREADED FITTINGS, UNLESS OTHERWISE NOTED.
3. ALL RACEWAY, ENCLOSURES AND BOXES SHALL BE GROUNDED IN AN APPROVED MANNER.
4. GROUND BUSHING SHALL BE INSTALLED ON ALL CONDUITS PENETRATING ENCLOSURES.
5. PROGRAMMING OF BASE BUILDING SYSTEM FIRE ALARM PANELS WILL BE BY THE AUTHORITY. PROGRAMMING OF ALL ADDRESSABLE DEVICES (SMOKE DETECTORS AND TRPS) SHALL BE BY THE CONTRACTOR. FINAL CONFIRMATION OF ADDRESSES SHALL BE AS DIRECTED BY ENGINEER PRIOR TO PROGRAMMING DEVICES.
6. SET TAP SETTINGS ON ALL SPEAKERS (AS SHOWN ON DWG'S) PRIOR TO INSTALLATION.
7. PATCH AND SEAL ALL CONDUITS PASSING THRU WALLS, FIRE RATED CONSTRUCTION AND PLUMBING WITH THERMAFIBER OR IPCC FLAME-SAFE.
8. TEST ALL REELS OF FIRE ALARM CABLE FOR CONTINUITY AND SHORTS, PRIOR TO INSTALLATION.
9. ALL BOX COVERS, CONDUIT COVERS, ETC. SHALL BE PAINTED RED. USE "2" STENCIL AND WHITE PAINT ON ALL COVERS INDICATING "1" FOR 1 WTC AND "2" FOR 2 WTC SYSTEM DESIGNATION.
10. UNDER THE DIRECTION OF THE ENGINEER, CONTRACTOR SHALL REMOVE EXISTING CEILING SURFACE MOUNTED SPEAKERS AND SMOKE DETECTORS, ONLY AFTER DEVICES TO BE INSTALLED ARE OPERATIONAL.
11. ALL EQUIPMENT SHOWN TO BE REMOVED SHALL HAVE ITS ASSOCIATED WIRING REMOVED OR ABANDONED AND TAPED IN PLACE. ENDS OF ABANDONED CABLES SHALL BE TAGGED "NOT IN USE".
12. SMOKE DETECTORS ARE REQUIRED AT ALL RETURN AIR GRILLS IN ACCORDANCE WITH DRAWING M-1.
13. NOT USED.
14. ALL FINISHES DISTURBED BY THE INSTALLATION OR REMOVAL OF DEVICES OR WIRING SHALL BE RESTORED TO MATCH EXISTING PRIOR TO START OF INSTALLATION.
15. NOT USED.
16. ALL PENETRATIONS MADE IN EXISTING FIRE ALARM EQUIPMENT SHALL BE MADE IN THE PRESENCE OF ENGINEER. NO TOP PENETRATIONS SHALL BE MADE IN ANY FIRE ALARM PANELS.
17. CONTRACTOR SHALL COORDINATE DEVICE PENETRATIONS WITH ENGINEER, FOR ALL NON-DRYWALL FACED WALLS.
18. FINAL CONNECTIONS IN THE TSC AND ATC CABINETS SHALL BE MADE BY THIS CONTRACTOR. THE CONTRACTOR SHALL STRIP, SHRINK, SHAPE AND LABEL TO DESIGNATED TERMINALS. THE CONTRACTOR SHALL NOTIFY THE P.A. 24 HOURS PRIOR TO MAKING FINAL CONNECTIONS.
19. CONTRACTOR SHALL USE BRADY LABELS #WML-305-292-1 (O.A.E.) FOR LABELING OF ALL CONDUCTORS AND #WML-305-292 (O.A.E.) FOR LABELING OF ALL CABLES.
20. FIRE ALARM CABLES SHALL BE TESTED IN ACCORDANCE TO THE PORT AUTHORITY'S SPECIFICATIONS, DIVISION 16, SECTION 16910.
21. CENTER ALL CORRIDOR CEILING SPEAKERS BETWEEN EXISTING CEILING LIGHTING FIXTURES OR TILE.
22. NOT USED.
23. NOT USED.
24. THE CONTRACTOR SHALL LABEL DETECTORS, DETECTORS BASES AND TRPS WITH ADDRESS INFORMATION IN THE FOLLOWING FORMAT
XXX - XXX
LOOP - DEVICE

ABBREVIATIONS

ALD	ANALOG LOOP DRIVER
ATC	ADDRESSABLE TERMINAL CABINET
CKT	CIRCUIT
CD	CANDELA
DWG	DRAWING
EL	ELECTRIC
ELEV	ELEVATOR
EOL	END OF LINE RESISTOR
EXIST.	EXISTING
ER	EXISTING TO BE REMOVED
FA	FIRE ALARM
FL	FLOOR
GND	GROUND
G.S.C.	GALVANIZED STEEL CONDUIT
MTD	MOUNTED
N.T.S.	NOT TO SCALE
O.A.E.	OR APPROVED EQUAL
PS	PULL STATION
SPKR	SPEAKER
STR	STROBE
TA	TEHANT AMPLIFIER
TB	TERMINAL BLOCK
TRI	INTELLIGENT INITIATING DEVICES INTERFACE MODULES
TYP	TYPICAL
TSC	TERMINAL STRIP CABINET
TSC	TERMINAL STRIP CABINET - F
TSC	TERMINAL STRIP CABINET - I
U.O.N.	UNLESS OTHERWISE NOTED
W	WATTS
W.T.C.	WORLD TRADE CENTER

CIRCUIT LEGEND

CIRCUIT NUMBER OR NAME	TYPE OF CIRCUIT
A TO G	STROBE AND SPEAKER CIRCUIT NUMBER
ATC	CIRCUIT TO ADDRESSABLE TERMINAL STRIP CABINET
PS	CIRCUIT TO PULL STATIONS
ELEV	CIRCUIT TO ELEV LOBBY & ELEV MACHINE ROOM SMOKE DETECTORS
HWAC	CIRCUIT TO HWAC SMOKE DETECTORS
AREA	CIRCUIT TO ELECTRICAL AND TELEPHONE CLOSET SMOKE DETECTORS
STR	STROBE CIRCUIT
SPKR	SPEAKER CIRCUIT
ALD	ALD LOOP DEVICE (EXCEPT SMOKE DETECTOR) CIRCUIT
SD	SMOKE DETECTOR CIRCUIT

LEGEND

HEAVY LINE INDICATES WORK TO BE DONE LIGHT LINE INDICATES EXISTING TO REMAIN NUMBER OF CABLES	TYPE OF CABLE A - 2 #14 AWG, 200C, 600V SHIELDED TWISTED PAIR TEFLON CABLE, CLASS "E" AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5. B - 2 #14 AWG, 200C, 600V UNSHIELDED TWISTED PAIR TEFLON CABLE, CLASS "E" AND BSA APPROVED N.Y.C. FOR LOCAL LAW #5. C - CEILING MOUNTED SPEAKER WITH RANGE FROM 1/8 TO 2 WATTS AS MANUFACTURED BY WHEELLOCK #E-90-W, 1/8W INDICATES 1/8 WATTS TAP SETTING. D - DEVICE ADDRESS: THE FIRST THREE DIGITS REPRESENT LOOP ADDRESS, THE NEXT THREE DIGITS REPRESENT DEVICE ADDRESS, AS DIRECTED BY THE ENGINEER. E - WALL MOUNTED SPEAKER WITH RANGE FROM 1/8 TO 2 WATTS AS MANUFACTURED BY WHEELLOCK #E-70-R, 1/8W INDICATES 1/8 WATTS TAP SETTING. F - FLUSHED MOUNTED STROBE WHEELLOCK, CANDELA RATING AS INDICATED. MODEL # AND ORDER AS FOLLOWS: 15cd - RSS-2415W-FR. 30cd - RSS-2430W-FR. 75cd - RSS-2475W-FR. 110cd - RSS-24110W-FR. NO SUBSTITUTIONS. G - PYROTROINICS MODEL TRI-B80 ADDRESSABLE INTERFACE SWITCH MODULE WITH SQUARE D TYPE KP12 RELAY MOUNTED IN PULL BOX. FURNISHED AND INSTALLED BY CONTRACTOR. H - END OF LINE (1/2 WATT 24K U.O.N.) RESISTOR. FURNISHED AND INSTALLED BY CONTRACTOR. I - SQUARE PULL BOX 4 1/16" - UNLESS OTHERWISE NOTED. J - EXISTING TERMINAL STRIP CABINET K - EXISTING ADDRESSABLE TERMINAL CABINET L - ADDRESSABLE OPEN AREA SMOKE DETECTOR FURNISHED AND INSTALLED BY CONTRACTOR. "XXX" REPRESENTS THREE DIGIT DEVICE ADDRESS ONLY. CONTRACTOR SHALL TAG DETECTOR HEAD AND BASE WITH COMPLETE SIX DIGIT DEVICE ADDRESS (INCLUDING LOOP AND DEVICE NUMBER) AS SHOWN ABOVE. THE SINGLE DIGIT NUMERAL INDICATES DETECTOR TYPE, MODEL # AND INSTALLATION DETAIL AS FOLLOWS: R - PLENUM MOUNTED (IN FRONT OF RETURN AIR GRILL) PYROTROINICS MODEL #FP-11 PART #500-095112 WITH BASE #DB-11 PART #500-094151. NO SUBSTITUTION. 1 - SUSPENDED CEILING/DRY WALL MOUNTED PYROTROINICS MODEL #FP-11 PART #500-095112 WITH BASE #DB-11 PART #500-094151. NO SUBSTITUTION. 2 - SURFACE MOUNTED (FOR OPEN CEILING AREA ONLY) PYROTROINICS MODEL #FP11 PART #500-095112 WITH BASE #DB-11 PART #500-094151. NO SUBSTITUTION.
XXX-XXX	EXISTING SMOKE DETECTOR IN SUSPENDED CEILING TO BE REMOVED AND CEILING PATCHED.
1/8W	EXISTING SMOKE DETECTOR TO REMAIN.
1/8W	EXISTING FIRE ALARM SPEAKER IN SUSPENDED CEILING TO BE REMOVED AND CEILING PATCHED.
15cd	EXISTING FIRE ALARM SPEAKER TO REMAIN.
15cd	EXISTING STROBE TO REMAIN
15cd	AREA WITH LIMITED COVERAGE.
15cd	EXISTING CONDUCTOR TO REMAIN.
15cd	EXISTING FIRE ALARM COMBINATION STROBE/SPEAKER TO BE REMOVED.

Sheet

Of

THE PORT AUTHORITY
OF NY & NJ



Joseph R. Loring
& Associates, Inc.

consulting engineers

One Pennsylvania Plaza
New York, New York 10119-0045
Tel (212) 563-7400
Fax (212) 563-7382

SCR Design Organization, Inc.
architects
305 EAST 46 STREET
NEW YORK, N.Y. 10017
TEL: (212) 421-3500

No.	Date	Revision	Approved
1	5/24/98	AS BID	DC

Engineering Department
Design Division

The World Trade
Center

Title
TOWER 1 & 2
FLOOR 44 & 78
FIRE ALARM
GENERAL NOTES
AND LEGEND

This drawing subject to conditions in contract.
All inventions, ideas, designs and methods
herein are reserved to Port Authority and
may not be used without its written consent

F.D.	F.D.	4565.000
Designed by	Drawn by	JRLA JOB No
4/27/98	P.E.N.	NONE
Date	Checked by	Scale

Contract Number	Drawing Number
WTC-857.090	F-1-2-1

